

IN THE CLAIMS

Please amend the claims to read as follows:

Listing of Claims

1. (Currently Amended) A method of encoding data in a code block comprising an information bit sequence in a communication device of a communication system, the method comprising the steps of:

separating the information bit sequence of a first coding branch into a first plurality of subsets of information bits, each subset forming a code block segment; ~~and~~

encoding the code block segments individually using at least one encoding ~~as~~ method; and

encoding the information bit sequence in a second coding branch individually and separate from the encoding operations of the first plurality of code block segments.

2. (Canceled).

3. (Currently Amended) The method according to claim 1 ~~2~~, wherein:

~~the step of encoding the information bit sequence is performed in a~~ second coding branch is arranged in parallel with the ~~to a~~ first coding branch, and

~~wherein~~ the separation and encoding operations on the first plurality of code block segments are performed independently of the encoding operations in the second coding branch.

4. (Previously Presented) The method according to claim 1, wherein the individual encoding steps of the code blocks and/or the code block segments are performed in a time diversity manner.

5. (Previously Presented) The method according to claim 1, further comprising the additional step of buffering at least a portion of either the code block or the code block segments prior to the encoding step.

6. (Canceled).

7. (Currently Amended) The method according to claim 1, wherein the encoding steps use at least one of convolutional codes, trellis codes, turbo codes, Reed-Solomon codes, and parity check codes.

8. (Previously Presented) The method according to claim 1, wherein the encoding step of the individually encoded code block segments or code blocks is performed in a plurality of parallel coding subbranches.

9. (Previously Presented) The method according to claim 1, wherein the information bits of the individually encoded code block segments are complementary to each other.

10. (Previously Presented) The method according to claim 1, wherein the segmentation of the code blocks is performed into code block segments of equal length.

11. (Canceled).

12. (Previously Presented) The method according to claim 1, wherein the bits of the code blocks and code block segments are combined after encoding to form a code word corresponding to the original information bit sequence before encoding.

13. (Previously Presented) The method according to claim 1, further comprising the step of interleaving the information bits of one or more coding branches and/or subbranches .

14. (Canceled).

15. (Previously Presented) The method according to claim 13, wherein the step of interleaving the information bits is performed after separation and prior to the encoding step into code block segments.

16-17. (Canceled).

18. (Previously Presented) The method according to claim 1, further comprising the step of including an error detection code inserted before the encoding step.

19-23. (Canceled).

24. (New) A method of encoding data in a code block comprising an information bit sequence in a communication device of a communication system, the method comprising the steps of:

separating the information bit sequence of a first coding branch into a first plurality of subsets of information bits, each subset forming a code block segment; and

encoding the code block segments individually using different encoding methods.

25. (New) A method of encoding data in a code block comprising an information bit sequence in a communication device of a communication system, the method comprising the steps of:

separating the information bit sequence of a first coding branch into a first plurality of subsets of information bits, each subset forming a code block segment; and

encoding the code block segments individually using at least one encoding method,

wherein

the length of the code blocks and/or code block segments is varied by zero-stuffing or partial repetition of the information bit sequence.

26. (New) A method of encoding data in a code block comprising an information bit sequence in a communication device of a communication system, the method comprising the steps of:

separating the information bit sequence of a first coding branch into a first plurality of subsets of information bits, each subset forming a code block segment;

encoding the code block segments individually using at least one encoding method; and

interleaving the information bits of one or more coding branches and/or subbranches,

wherein

the interleaving step uses different interleaving patterns for different coding branches or subbranches.

27. (New) A method of encoding data in a code block comprising an information bit sequence in a communication device of a communication system, the method comprising the steps of:

separating the information bit sequence of a first coding branch into a first plurality of subsets of information bits, each subset forming a code block segment;

encoding the code block segments individually using at least one encoding method; and

adjusting the length of the code block prior to its separation into code block segments.

28. (New) A method of encoding data in a code block comprising an information bit sequence in a communication device of a communication system, the method comprising the steps of:

separating the information bit sequence of a first coding branch into a first plurality of subsets of information bits, each subset forming a code block segment;

encoding the code block segments individually using at least one encoding method; and

adjusting the length of the code block prior to its separation into code block segments,

wherein

the adjustment is obtained by appending termination bits to the information bit sequence in at least one coding branch or subcoding branch.

29. (New) A method of encoding data in a code block comprising an information bit sequence in a communication device of a communication system, the method comprising the steps of:

separating the information bit sequence of a first coding branch into a first plurality of subsets of information bits, each subset forming a code block segment; and

encoding the code block segments individually using at least one encoding method,

wherein

the separation is performed by periodically switching the input bit sequence to one of the subbranches.

30. (New) A method of encoding data in a code block comprising an information bit sequence in a communication device of a communication system, the method comprising the steps of:

separating the information bit sequence of a first coding branch into a first plurality of subsets of information bits, each subset forming a code block segment; and

encoding the code block segments individually using at least one encoding method,
wherein

the separation is performed using a transition vector or matrix which signifies which input bit shall be forwarded to which subbranches.

31. (New) A method of encoding data in a code block comprising an information bit sequence in a communication device of a communication system, the method comprising the steps of:

separating the information bit sequence of a first coding branch into a first plurality of subsets of information bits, each subset forming a code block segment; and

encoding the code block segments individually using at least one encoding method,
wherein

the separation is performed using a puncturing vector or matrix that determines which bits can pass through and which bits are removed for a particular subbranch.

32. (New) A communication device encoder that encodes data in a code block comprising an information bit sequence, the encoder comprising:

a separator that separates the information bit sequence of a first coding branch into a first plurality of subsets of information bits, each subset forming a code block segment;

a first encoder that encodes the code block segments individually using at least one encoding method; and

a second encoder that encodes the information bit sequence in a second coding branch individually and separate from the encoding operations of the first plurality of code block segments.

33. (New) A wireless communication device encoder that encodes data in a code block comprising an information bit sequence, the encoder comprising:

a separator that separates the information bit sequence of a first coding branch into a first plurality of subsets of information bits, each subset forming a code block segment;

a first encoder that encodes the code block segments individually using at least one encoding method;

a second encoder that encodes the information bit sequence in a second coding branch individually and separate from the encoding operations of the first plurality of code block segments; and

a wireless transmitter that wirelessly transmits the encoded code block segments and the encoded information bit sequence.